

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A method for facilitating full text searching of a set of data, the method comprising:

obtaining keyword data corresponding to a set of data;  
generating an inverted keyword index corresponding to the keyword data;  
storing the inverted keyword index in a shared process memory;  
obtaining a keyword query from a first process; and  
processing the keyword query from the inverted keyword index in a shared memory.

2. The method as recited in Claim 1, wherein the set of data corresponds to a set of documents.

3. The method as recited in Claim 1, wherein the set of data corresponds to a set of rows in a database.

4. The method as recited in Claim 1, wherein generating an inverted keyword index includes generating an inverted keyword attribute index.

5. The method as recited in Claim 4, wherein the inverted keyword attribute index corresponds to keyword occurrence information in the set of data.

6. The method as recited in Claim 5, wherein an inverted keyword attribute index corresponds to data selected from the group consisting of language information, format information, sentence information, ranking information, document timestamp information, and metadata information.

7. The method as recited in Claim 4, wherein the inverted keyword index and the inverted keyword attribute index correspond to red and black index trees.

8. The method as recited in Claim 1, wherein storing the inverted keyword index includes dynamically adjusting memory pointers corresponding to the inverted keyword index.

9. A computer-readable medium having computer-executable instructions for performing the method recited in Claim 1.

10. A computer system including a processor, a memory, and an operating environment, the computer system operable to perform the method recited in Claim 1.

11. A method for facilitating full text searching of a set of data, the method comprising:

obtaining keyword data corresponding to a set of data;  
generating an inverted keyword index and an inverted keyword attribute index corresponding to the keyword data; and  
storing the inverted keyword index and the inverted keyword attribute index in a shared process memory buffer.

12. The method as recited in Claim 11, wherein the set of data corresponds to a set of documents.

13. The method as recited in Claim 11, wherein the set of data corresponds to a set of rows in a database.

14. The method as recited in Claim 11, wherein the inverted keyword attribute index corresponds to keyword occurrence information.

15. The method as recited in Claim 14, wherein the inverted keyword attribute index corresponds to the data selected from the group consisting of language information, format information, sentence information, ranking information, document timestamp information and metadata information.

16. The method as recited in Claim 11, wherein the inverted keyword index and the inverted keyword attribute index are red and black index trees.

17. The method as recited in Claim 16, wherein generating the inverted keyword attribute index includes:

- (a) obtaining the first keyword from the set of data;
- (b) inserting the keyword into the inverted keyword index;
- (c) inserting keyword attribute data corresponding to the keyword into a temporary keyword attribute index;
- (d) repeating (a)-(c) for all keyword data in the set of data; and
- (e) converting the temporary keyword attribute index into the inverted keyword attribute index in the shared process memory buffer.

18. The method as recited in Claim 11 further comprising:  
obtaining a keyword query from a process; and  
processing the keyword query from the inverted keyword index in the shared memory buffer.

19. The method as recited in Claim 18 further comprising:  
obtaining a second keyword query from a second process; and  
processing the keyword query from the inverted keyword index in the shared memory buffer.

20. The method as recited in Claim 11, wherein storing the inverted keyword index includes dynamically adjusting memory pointers corresponding to the inverted keyword index.

21. A computer-readable medium having computer-executable instructions for performing the method recited in Claim 11.

22. A computer system having a processor, a memory, and an operating environment, the computer system operable for performing the method recited in Claim 11.

23. A system for facilitating full text searching, the system comprising:  
one or more processes for issuing keyword queries;  
an index generation component for obtaining a set of data and generating an inverted keyword index;  
a shared memory buffer for storing the inverted keyword index of a set of data; and  
a query processing component for processing keyword queries issued by the one or more processes from the inverted keyword index stored in the shared memory buffer.

24. The system as recited in Claim 23, wherein the inverted keyword index corresponds to a set of documents.

25. The method as recited in Claim 23, wherein the set of data corresponds to a set of rows in a database.

26. The system as recited in Claim 23, wherein the shared memory buffer includes an inverted keyword attribute index corresponding to each note in the inverted keyword index.

27. The system as recited in Claim 26, wherein the inverted keyword attribute index corresponds to keyword occurrence information in the set of data.

28. The system as recited in Claim 26, wherein the inverted keyword attribute index corresponds to the data selected from the group consisting of language information, format information, sentence information, ranking information, document timestamp information and made metadata information.

29. The system as recited in Claim 26, wherein the inverted keyword index and the inverted keyword attribute index are red and black index trees.

30. The system as recited in Claim 24, wherein the inverted keyword index includes a set of pointers dynamically adjusted according to the one or more processes accessing the inverted keyword index.

31. The system as recited in Claim 23 further comprising:  
a disk subsystem for storing at least a portion of the inverted keyword index of a set of data; and  
a merge process for merging the inverted keyword index in the shared memory with the portion of the inverted keyword index in the disk subsystem.